24. The method of claim 14 wherein said treated separated sonicated fluid is recycled for use as said fluid in said method.

25. The method of claim 1 wherein said sonicating step uses sonication equipment without grinding media.

26. The method of claim 1, wherein said sonicating step occurs in a temperature range of 100-120 °C.

27. The method of claim 5, wherein said sonicating step occurs in a temperature range of 80-98°C.

28. The method of claim 1, wherein said sonicating step uses a resonating probe contacting said fluid.

29. The method of claim 1, wherein said sonicating step takes place in one or more chambers mounted axially to a resonating member.

30. The method of claim 1, wherein said liquid hydrocarbons contain one or more hydrocarbon subcomponents which are not liquids at sonication temperature.

31. The method according to claim 4, wherein said sonicating step occurs at a minimum temperature of 100°C.

32. The method according to claim 1, wherein said sodium-containing alkali metal is commercially pure sodium metal.

33. An apparatus for treating polychlorinated biphenyl (PCB) contaminated media, comprising:

a) a reaction vessel for holding a mixture of said media and a liquid hydrocarbon-containing fluid;

b) a sonicator without grinding media for sonicating said mixture at an audio frequency; and

c) a heater for controlling the temperature of said mixture.

34. The apparatus of claim 33, wherein said sonicator uses a resonating probe contacting said fluid.

35. The apparatus of claim 33, wherein said reaction vessel consists of one or more chambers mounted axially to a resonating member of said sonicator.

36. The apparatus of claim 33, wherein said reaction vessel includes vents to release gas during sonication.